



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/000,824	12/30/1997	JAYANTHA AMARASEKERA	60SI-1890	5842

7590

11/21/2002

Robert M. Schulman
Hunton & Williams
1900 K Street, N.W
Suite 1200
Washington, DC 20006-1109

EXAMINER

LU, C CAIXIA

ART UNIT

PAPER NUMBER

1713

38

DATE MAILED: 11/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/000,824

Applicant(s)

AMARASEKERA ET AL.

Examiner

Caixia Lu

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. The request for continued examination (RCE) under 37 C.F.R. § 1.114 of Application No 09/000,824 filed on September 12, 2002 is acceptable. An action on the RCE follows.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-32 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
 - A. The support for the limitation “wherein said coupling agent (C) is present in an amount effective to act as a surface modifier for the aluminum hydroxide powder” in Claim 1 and the newly added Claims 31 and 32 in AMENDMENT AND RESPONSE filed on August 7, 2001 is not provided by the applicant at the time when the amendment was filed. While the Specification discloses that the coupling agent “act as (a) a surface modifier for fumed silica and ATH, and (b) as a cross linker for the coupling between fumed silica and ATH with siloxane polymers”, the disclosure does not support of limitation of the coupling agent (C) present in an effective amount for those functions and the only amount of coupling agent provided is “from about 0.01% to

Art Unit: 1713

about 1% by weight of the total composition" which does not provide sufficient support.

Therefore, the limitation of effective amount of silane is new matter.

B. In Claim 17, the limitation regarding "silane treating agent" is not present in the application as originally filed, thus, is new matter.

C. The support for Claims 17-30 added in Amendment filed on October 25, 1999 was not provided by the applicant at the time when the amendment was filed. The examiner is not able to find the supports for the relative amount ranges of components (A)-(D). Thus, the relative amount ranges of components (A)-(D) of the instant claims are new matter.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Art Unit: 1713

5. Claims 1-6, 8-13, and 15-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsushita et al. (US 5,824,729).

Matsushita's Claims 1-7 and Examples 1 and 2 teach (A) an alkenyl group containing siloxane, (B) an aluminum hydroxide, (C) a silane or siloxane treating agent, (D) an organoperoxide curing agent wherein the peroxide is introduced to the composition as a 50 weights silicone oil paste. Matsushita's teaching encompasses the instant claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushita et al. (US 5,824,729).

Matsushita's teaching is relied upon as shown above. Matsushita's Example 2 differ from instant Claim 7 in that Example 2 does not specifically use a silane coupling such as vinyltrimethyl silane. However, it would have been obvious for a skilled artisan to use vinyltrimethyl silane of Example 1 in Example 2 to provide a silicone composition since Matsushita teaches that both of alkoxy and vinyl groups containing silane and siloxane can be used as the treating agent (coupling agent).

Art Unit: 1713

6-28-04
u

While Matsushita's working examples do not include a coloring agent or heat resistive agent, Matsushita does expressly teach that addition^{al} components, pigment, heat stabilizers such as rare earth oxide and cerium fatty acid, can be added to the composition (col. 3, lines 37-54).

8. Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dams (US 4,355,129) in view of Milbert (US 3,821,140).

Dams teaches a composition for high voltage insulation comprising a silicone polymer (col. 1, line 50 to col. 2, line 20), a reinforcing filler polymer (col. 2, line 25), an anti-tracking and flame retardant agent (col. 3, lines 20-28), a coupling agent (col. 2, lines 38-49), a curing agent (col. 2, line 62 to col. 4, line 5), an extending filler agent (col. 2, line 24-28), a processing fluid (col. 2, lines 16-17 and 43-44), a mold release agent (col. 2, lines 16-17 and 43), a coloring agent (col. 3, lines 32-37), and heat resistant agent (col. 3, lines 21-23).

Although Dams' silicone polymer contains dimethyl siloxy, methylvinyl siloxy and alkylhalogenoalkyl siloxy units, Dams does not particularly teach the silicone polymer containing hydroxy or alkoxy ending group.

Milbert teaches a polysiloxane composition for electric insulation material comprising all the components as claimed in the instant claims except the alumina trihydrate anti-tracking agent (col. 1, line 35 to col. 4, line 10 and Examples). Milbert's polysiloxane reads on that of the instant claims.

When the silicone polymer containing both vinyl and alkoxy/hydroxy groups, the silicone polymer can bond with the coupling agent through condensation and free

radical polymerization reaction, the silicone polymer also react with the oxide-type filler directly to enhance the bonding with the filler, thus, the mechanical properties of the cured silicone composition.

Thus, it would have been obvious for a skilled artisan at the time the invention is made to employ Milbert's silicone polymer in Dams' composition to provide a high voltage insulation material with improved bonding between the silicone polymer and the fillers such as silica and alumina trihydrate.

Response to Arguments

9. Applicant's arguments filed on September 12, 2002 have been fully considered.

Applicant indicates that "the Declaration provides sufficient evidence of conception and reduction to practice prior to remove the rejections in view of Matsushita et al." This is not true. No record has indicated such. Furthermore, applicant's declaration is filed with the intent to provoke an interference, thus, the Declaration should not be considered by the examiner and it will be considered if an interference is properly provoked. Applicant needs to overcome the rejections under 35 U.S.C. 112, 1st paragraph and 103(a) over Dams (US 4,355,129) in view of Milbert (US 3,821,140) before provoking the interference.

Applicant also indicated that it was agreed during the interview conducted on May 14, 2002 that "Dams does not teach a silane coated ATH while Milbert does not teach ATH at all, therefore, neither Dams nor Milbert teaches the claimed composition." This is not true. No record in the Interview Summary has indicated such.


Art Unit: 1713

Applicant states that the examiner "agreed that Dams does not disclose or suggest coating ATH with a silane coupling agent". Again, there is no record to support such. On the contrary, it is the examiner's position when an alkoxy group containing silane coupling agent is included in the composition, the alkoxy group will condense with any hydroxyl groups in the composition which include the hydroxyl group of silica, aluminum oxide as well as alumina trihydrate. Most important of all, "coating ATH with a silane coupling agent" is not supported by applicant's disclosure as originally filed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (703) 306-3434. The examiner can normally be reached on 9:00 a.m. to 3:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1193.



Caixia Lu, Ph.D.
Examiner

November 18, 2002